

### ABSTRACT OF THE DISCLOSURE

The present invention provides a method for inhibiting atrophy or causing hypertrophy in muscle cells, by inhibiting the action of the phosphatase SHIP2. It  
5 further provides a method for inhibiting skeletal muscle atrophy or causing skeletal muscle hypertrophy in vertebrate animals, by inhibiting the Akt pathway through the inhibition of SHIP2. It also provides a method of identifying agents that may be used for inhibiting atrophy or causing hypertrophy in muscle cells, by screening for inhibitors of SHIP2 or inhibitors of the SHIP2 signaling pathway.

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